UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/677,922	10/01/2003	Charles W. Friedli	ISO1359ESG	1767

20280 7590 02/09/2006

MOTOROLA INC
600 NORTH US HIGHWAY 45
ROOM AS437
LIBERTYVILLE, IL 60048-5343

EXAMINER	
PIGGUSH, AARON C	

ART UNIT	PAPER NUMBER
2838	

DATE MAILED: 02/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/677,922	FRIEDLI ET AL.	
	Examiner	Art Unit	
	Aaron Piggush	2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 December 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 July 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 19, 2005 has been entered.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-5, 9, and 12-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Ferrell (US 4,213,078).

With respect to claim 1, Ferrell discloses a latch for a rechargeable battery pack (abstract ln 4-8), comprising:

a planar member configured for insertion to the rechargeable battery pack in a first linear direction (no. 30 in Fig. 1 and 3);

at least one spring retention post coupled to the planar member configured to receive a spring force of the rechargeable battery pack directed in a second linear

direction opposite the first linear direction (middle sections of no. 30-2 and 30-3 in Fig. 12 and 13, they retain spring no. 30-4);

at least one insertion snap coupled to the planar member configured to resist the spring force and maintain the planar member at a particular position relative to the rechargeable battery pack until released therefrom (no. 30-2 and 30-3 in Fig. 12 and 13 and as seen on no. 30 in Fig. 3 wherein those parts fit into no. 20-5 and stop at 20-4 in Fig. 3); and

at least one barbed wing member coupled to the planar member, extending distally outward from the planar member (no. 30-3 in Fig. 12 and as seen on the side of no. 30 in Fig. 3 or no. 20-1 in Fig. 3).

With respect to claim 2, Ferrell discloses the latch of claim 1, further comprising at least one mechanical stop coupled to the planar member (no. 30-2 in Fig. 12 wherein that part is stopped at no. 20-4 in Fig. 3).

With respect to claim 3, Ferrell discloses the latch of claim 2, further comprising at least one barbed wing member support, wherein the at least one barbed wing member support extends perpendicularly from the planar member such that the barbed wing member is in a non-coplanar geometric relationship with the planar member (as seen on no. 30 in Fig. 3 and bottom sides of 30-1 in Fig. 12).

With respect to claim 4, Ferrell discloses the latch of claim 2, further comprising a finger grip on the planar member (as seen on top of no. 30 in Fig. 3 and col 4 ln 65-67).

With respect to claim 5, Ferrell discloses the latch of claim 1, wherein the latch comprises two barbed wing members, wherein a first barbed wing member extends distally from

a first edge of the planar member, and a second barbed wing member extends distally from a second edge of the planar member, wherein the first barbed wing member and the second barbed wing member are collinear (each side of no. 30-3 in Fig. 12 and 13 and seen on the side of no. 30 in Fig. 3).

With respect to claim 9, Ferrell discloses a rechargeable battery pack, comprising:

at least one rechargeable battery cell (col 3 ln 10);

a housing comprising a top and a bottom, into which the at least one rechargeable battery cell is placed (no. 20 in Fig. 3), wherein the housing comprises at least one latch aperture for receiving a battery latch (opening at end of no. 20 in Fig. 3); and

a latch comprising:

a planar member configured for insertion to the rechargeable battery pack in a first linear direction (no. 30 in Fig. 1 and 3);

at least one spring retention post coupled to the planar member configured to receive a spring force of the rechargeable battery pack directed in a second linear direction opposite the first linear direction (middle sections of no. 30-2 and 30-3 in Fig. 12 and 13, they retain spring no. 30-4); and

at least one insertion snap coupled to the planar member configured to resist the spring force and maintain the planar member at a particular position relative to the rechargeable battery pack until released therefrom (no. 30-2 and 30-3 in Fig. 12 and 13 and as seen on no. 30 in Fig. 3 wherein those parts fit into no. 20-5 and stop at 20-4 in Fig. 3).

With respect to claim 12, Ferrell discloses the battery pack of claim 9, wherein the latch aperture comprises at least one slot for receiving the at least one insertion snap (no. 20-5 and 20-4 at end of no. 20 in Fig. 3 wherein no. 30-2 and 30-3 in Fig. 12 and 13 fit into those slots).

With respect to claim 13, Ferrell discloses the battery pack of claim 9, wherein the latch aperture comprises at least one slot for receiving the at least one mechanical stop (no. 20-4 in Fig. 3 wherein the stop is no. 30-2 in Fig. 12).

With respect to claim 14, Ferrell discloses the battery pack of claim 9, wherein the latch aperture comprises at least one slot for receiving the at least one barbed wing member (no. 20-5 in Fig. 3 wherein the member is no. 30-3 in Fig. 12).

3. Claims 1-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Sharrah (US 6,633,152).

With respect to claim 1, Sharrah discloses a latch for a rechargeable battery pack, comprising:

a planar member configured for insertion to the rechargeable battery pack in a first linear direction (no. 81 in Fig. 9);

at least one spring retention post coupled to the planar member configured to receive a spring force of the rechargeable battery pack directed in a second linear direction opposite the first linear direction (sides of no. 84 in Fig. 9);

at least one insertion snap coupled to the planar member configured to resist the spring force and maintain the planar member at a particular position relative to the rechargeable battery pack until released therefrom (no. 82 and 83 in Fig. 9); and

at least one barbed wing member coupled to the planar member, extending distally outward from the planar member (no. 80 in Fig. 9).

With respect to claim 2, Sharrah discloses the latch of claim 1, further comprising at least one mechanical stop coupled to the planar member (right side of case under no. 80 in Fig. 9).

With respect to claim 3, Sharrah discloses the latch of claim 2, further comprising at least one barbed wing member support, wherein the at least one barbed wing member support extends perpendicularly from the planar member such that the barbed wing member is in a non-coplanar geometric relationship with the planar member (no. 83 in Fig. 9).

With respect to claim 4, Sharrah discloses the latch of claim 2, further comprising a finger grip on the planar member (grooves on no. 81 in Fig. 9).

With respect to claim 5, Sharrah discloses the latch of claim 1, wherein the latch comprises two barbed wing members, wherein a first barbed wing member extends distally from a first edge of the planar member, and a second barbed wing member extends distally from a second edge of the planar member, wherein the first barbed wing member and the second barbed wing member are collinear (middle section of lever protruding from planar member, surrounding no. 83 in Fig. 9, and the second barbed wing member is section under no. 80 and to the right and upper right of spring no. 84 in Fig. 9).

With respect to claim 6, Sharrah discloses the latch of claim 3, wherein each of the barbed wing members comprises at least one barb, wherein the at least one barb extends from the barbed wing members perpendicularly (no. 82 in Fig. 9 and small protrusion to the left of no. 80 and to the upper right of no. 84 in Fig. 9).

With respect to claim 7, Sharrah discloses the latch of claim 6, wherein the at least one barb comprises at least one inclined planar member (no. 80 in Fig. 9).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharrah (US 6,633,152) in view of Ferrell (US 4,213,078) (with David, Jr. [US 4,728,157] used in the motivation).

With respect to claim 8, Sharrah discloses the latch of claim 7 as noted under the rejection under 35 U.S.C. 102(e), however, does not expressly disclose wherein the latch is manufactured from a material selected from the group consisting of plastics, styrene, ABS, polystyrene, acrylic, polycarbonates, resin, and rubber.

Ferrell discloses wherein the latch is manufactured from plastic or another insulating material (col 4 ln 64-65), so that user would be protected from any shock and so that the latch or device would be lightweight, sturdy, and inexpensive as recited by David, Jr. (US 4,728,157 col 3 ln 50-52).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to make the latch of Sharrah out of an insulating material, in order to prevent the user from any shock and to keep the latch or device lightweight, sturdy, and inexpensive.

6. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ferrell (US 4,213,078) in view of David, Jr. (US 4,728,157).

With respect to claims 10 and 11, Ferrell discloses the battery pack of claim 9 as noted above under the rejection under 35 U.S.C. 102(b) and discloses wherein the latch aperture comprises at least one spring retention post (middle sections of no. 30-2 and 30-3 in Fig. 12 and 13 to which spring no. 30-4 attaches, and col 5 ln 2-4), however, does not expressly disclose the pack further comprising a butterfly spring.

David, Jr. discloses a latch secured into different positions by action of a butterfly spring connected to a spring retention post (spring no. 72 in Fig. 2 is retained by the post which it pivots around in addition to another post at the end of the spring which is connected to the wall no. 16 in Fig. 2 of the device, and col 4 ln 40-44), in order to urge the toggle member into either one of its first and second positions and to provide a definitive latching action (col 4 ln 44-48), which will prevent the disk or other object being secured from coming out of the holder.

Ferrell and David, Jr. are analogous art because they are from the same field of endeavor which is latching mechanisms, and the specification sent in with this application further points out that it would be obvious to those of ordinary skill in the art that the latch assembly may be equally applied to numerous other devices, including detachable accessories (including disk drives).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the battery pack and latch of Ferrell to include a butterfly spring, so that the toggle member could be urged into either of its positions and so that there would be a definitive latching action, which would prevent the battery pack from coming out of its holder.

Response to Arguments

7. Applicant's arguments filed December 19, 2005 have been fully considered but they are not persuasive.

With regards to the argument concerning claims 1 and 9, applicant argues that David, Jr. (US 4,728,157) does not describe or suggest an insertion snap coupled to the planar member to receive a spring force in an opposite direction, or an insertion snap coupled to the planar member to resist the spring force form the opposite direction.

Examiner respectfully points out that the David, Jr. reference was used in combination with Ferrell (US 4,213,078), wherein the David, Jr. reference was only used for its disclosure of the butterfly spring (spring no. 72 in Fig. 2 is retained by the post which it pivots around in addition to another post at the end of the spring which is connected to the wall no. 16 in Fig. 2 of the device, and col 4 ln 40-44), as noted above under the U.S.C. 103 rejection of claims 10 and 11. Ferrell discloses all other parts mentioned in the arguments, excluding the butterfly spring, and is used as the main reference for those rejections, as noted above. Therefore, examiner respectfully disagrees with the argument concerning David, Jr. as a reference and considers the points moot.

Additionally, applicant argues that Ferrell and Sharrah (US 6,633,152) do not describe or suggest a latch having a planar member that is inserted to another device in a linear direction, let alone an insertion snap coupled to the planar member to receive a spring force in an opposite direction, or an insertion snap coupled to the planar member to resist the spring force form the opposite direction.

Examiner respectfully disagrees for the following reasons: Examiner believes that all of these arguments are met by both references, as disclosed in the rejections of claims 1 and 9 under 35 U.S.C. 102 above. Additionally, the examiner will provide further clarification.

The linear direction requirement is met by Ferrell (arrow pointing linearly inward from no. 30 in Fig. 3) and by Sharrah (no. 81 in Fig. 9 installed and linearly pushed in or released). The insertion snap coupled to the planar member that receives and resists the spring force in the opposite direction is also met by Ferrell (no. 30-2 and 30-3 in Fig. 12 and 13 and as seen on no. 30 in Fig. 3, wherein those parts fit into no. 20-5 and stop at 20-4 in Fig. 3, and wherein the spring force is caused by the battery pushing on the spring no. 30-4 in Fig. 12, and wherein the slots no. 20-5 and 20-4 provide a connection so that no. 30-2 and 30-3 can resist the outward force) and by Sharrah (no. 82 and 83 in Fig. 9, wherein the force of the battery on no. 82 and the resulting force of the spring no. 84 in Fig. 9 on no. 82 are in opposite directions, and wherein the entire lever is retained and pivoted around no. 83 in Fig. 9, and wherein the forces from the spring are also applied to and resisted by the sides of no. 84 in Fig. 9).

All depending claims are also met, as noted above under the 102 and 103 rejections.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron Piggush whose telephone number is 571-272-5978. The examiner can normally be reached on Monday-Friday 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Karl Easthom can be reached on 571-272-1989. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AP

Adolf Deneke Berhane
Primary Examiner